

**Table 6-1**  
**Comparison of Residual Risk, Soil Removal, and Cost**  
**Upland and Non Tidal Wetland Areas**  
**Investigation Area H1 Feasibility Study**  
**Mare Island, Vallejo, California**

UPLAND AREAS										
Alternative	H1 Human Risk Estimates								Soil to Excavate (cubic yards)	Cost
	Child Recreational User ( 0-10 feet)				Construction Worker (0-10 feet)					
	Residual Carcinogenic Soil Risk	Residual Soil HI	Residual Carcinogenic Groundwater & Soil Risk	Residual Groundwater & Soil HI	Residual Carcinogenic Soil Risk	Residual Soil HI	Residual Carcinogenic Groundwater & Soil Risk	Residual Groundwater & Soil HI****		
1*	5.2x10 <sup>-5</sup>	0.27			8.8x10 <sup>-6</sup>	1.20			0	\$0
1 w/o arsenic*	6.7x10 <sup>-6</sup>	0.20			1.1x10 <sup>-6</sup>	1.00				
2	4.6x10 <sup>-5</sup>	0.22	4.8x10 <sup>-5</sup>	0.31	7.6x10 <sup>-6</sup>	1.1	8.1x10 <sup>-6</sup>	1.4	46,880	\$2,976,000
2 w/o arsenic	6.9x10 <sup>-6</sup>				1.1x10 <sup>-6</sup>					
3	5.2x10 <sup>-5</sup>	0.21	4.8x10 <sup>-5</sup>	0.30	7.2x10 <sup>-6</sup>	1.1	8.1x10 <sup>-6</sup>	1.4	47,450	\$3,006,000
3 w/o arsenic	5.1x10 <sup>-6</sup>				7.2x10 <sup>-7</sup>					
4	5.1x10 <sup>-5</sup>	0.21	4.7x10 <sup>-5</sup>	0.30	7.2x10 <sup>-6</sup>	1.1	7.9x10 <sup>-6</sup>	1.4	51,075	\$3,160,000
4 w/o arsenic	4.4x10 <sup>-6</sup>				7.0x10 <sup>-7</sup>					
5**									453,850	\$19,181,000
NON-TIDAL WETLAND AREAS										
Alternative	H1 Human Risk Estimates								Soil to Excavate (cubic yards)	Cost
	Child Recreational User ( 0-10 feet)				Construction Worker (0-10 feet)					
	Soil & Sediment Residual Carcinogenic Risk	Soil Residual HI	Residual Carcinogenic Surface Water, Groundwater, Soil, & Sediment Risk	Residual Surface Water, Groundwater, & Sediment HI	Soil & Sediment Residual Carcinogenic Risk	Soil Residual HI	Residual Carcinogenic Surface Water, Groundwater, Soil, & Sediment Risk	Residual Surface Water, Groundwater, & Sediment HI		
2	6.4x10 <sup>-5</sup>	0.22	8.4x10 <sup>-5</sup>	0.33	1.1x10 <sup>-5</sup>	1.2	1.1x10 <sup>-5</sup>	1.5	1,495	\$104,000
2 w/o arsenic	2.8x10 <sup>-6</sup>				4.7x10 <sup>-7</sup>					
3	6.3x10 <sup>-5</sup>	0.22	8.2x10 <sup>-5</sup>	0.32	1.0x10 <sup>-5</sup>	1.2	1.1x10 <sup>-5</sup>	1.5	2,100	\$141,000
3 w/o arsenic	2.9x10 <sup>-6</sup>									
4	6.4x10 <sup>-5</sup>	0.21	8.3x10 <sup>-5</sup>	0.32	1.0x10 <sup>-5</sup>	1.2	1.1x10 <sup>-5</sup>	1.5	2,825	\$181,000
4 w/o arsenic	2.8x10 <sup>-6</sup>									
5	6.3x10 <sup>-5</sup>	0.21	8.4x10 <sup>-5</sup>	0.31	1.0x10 <sup>-5</sup>	1.2	1.1x10 <sup>-5</sup>	1.4	5,560	\$365,000
5 w/o arsenic	2.8x10 <sup>-6</sup>									

\* Alternative 1 = no action = original baseline Human Health Risk Assessment did not include outlier concentrations

\*\* Debris removal would revert to ambient risk levels for Mare Island

Upland Areas risk calculations do not account for the 2-foot clean soil cover applied to the Upland Areas.

\*\*\*No individual chemical or target organ HI exceeded 1.

HI = hazard index

w/o = without